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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/644,518

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Ching-Huang Lin

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05/05/2004

Quintero Law Office  
3rd Floor  
1617 Broadway  
Santa Monica, CA 90404

EXAMINER

ZIMMERMAN, GLENN

ART UNIT

PAPER NUMBER

2879

DATE MAILED: 05/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/644,518

**Applicant(s)**

LIN ET AL.

**Examiner**

Glenn Zimmerman

**Art Unit**

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-5 are rejected under 35 U.S.C. 102(e) as being Cho et al. by U.S. Patent 6,674,250.

Regarding claim 1, Cho et al. disclose a planar light emitting mechanism, comprising: a rectangular light guiding plate (**plastic light guide Fig. 2b no ref. #; or Fig. 3b or 3d no ref. # or ref. 25 plate**), a lamp (**lamp Fig. 2b no ref. # or Fig 3b or 3d no ref. #; fluorescent lamp Fig. 1 ref. 10**), disposed on a side of the light guiding plate, having a brighter effective emitting area (**glass tube inner area Fig. 1a ref. 11**) and a curved darker emitting area (**external electrode area Fig. 1a ref. 13**) adjacent to a corner of the light guiding plate (**col. 8 lines 35-46 or col. 8 lines 63-67; col. 9 lines 1-5; Fig. 4 ref. 25 plate**).

Regarding claim 2, The planar light emitting mechanism as claimed in claim wherein the brighter effective emitting area is curved (**Fig. 3d no ref. #**).

Regarding claim 3, Cho et al. disclose the planar light emitting mechanism as claimed

in claim wherein the lamp is tubular (**glass tube Fig. 1a ref. 11**) and longer (**Fig. 2b no ref. #**) than the side of the light guiding plate.

Regarding claim 4, Cho et al. disclose the planar light emitting mechanism as claimed in claim 1, wherein the lamp is a Cold Cathode Fluorescent (CCFL) (**col. 8 line 40**).

Regarding claim 5, Cho et al. disclose the planar light emitting mechanism as claimed in claim wherein the lamp has a plurality of curved darker emitting areas (**Fig. 2b no ref. #**).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cho et al. by U.S. Patent 6,674,250 in view of Funamoto et al. U.S. Patent 5,949,505.

Regarding claim 6, Cho et al. teaches a planar light emitting mechanism, comprising: a rectangular light guiding plate (**plastic light guide Fig. 2b no ref. #; plate ref. 25; Fig. 3b or 3d**) having at least a corner (**Fig. 2b no r f. #; r f. 25**); a lamp (**Fig. 2b no ref. #; fluorescent lamp Fig. 1 ref. 10**), disposed on a side of the light

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guiding plate, having a brighter effective emitting area (**cylindrical glass tub Fig. 1a ref. 11**) and two darker emitting areas (**external electrode areas Fig. 1a ref. 13**), wherein the brighter effective emitting area is between the darker emitting areas (**col. 8 lines 35-46; Fig. 3b or 3d**), and at least a darker emitting area is adjacent to a corner (**Fig. 2b no ref. #; col. 8 lines 63-67; col. 9 lines 1-5; Fig.4 ref. 25**), but fails to teach a round corner. Funamoto et al. in the analogous art teaches a round corner of a rectangular light guiding plate (**Fig. 10C ref. 40**). Additionally, Fuamoto et al. teaches incorporation of such a round corner to improve the device by keeping the distance between the polarizer and the illuminant within a fixed range for high incident efficiency, and thus, a highly efficient illumination device that is small in size can be realized (**col. 2 lines 53-57**) and also the rounding allows for miniaturization because the illumination device doesn't need to be made longer than compared with a sharp corner (**col. 2 lines 55-60**).

Consequently it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use a round corner in the light guide of Cho et al., since such a modification would improve the device by keeping the distance between the polarizer and the illuminant within a fixed range for high incident efficiency, and thus, a highly efficient illumination device that is small in size can be realized and also the rounding allows for miniaturization because the illumination device doesn't need to be made longer than compared with a sharp corner as taught by Funamoto et al.

Regarding claim 7, The planar light emitting mechanism as claimed claim 6, wherein the darker emitting areas are curved (**Fig. 2b no ref. #; Fig. 1b ref. 13 external electrode areas**).

Regarding claim 8. The planar light emitting mechanism as claimed in claim 6, wherein the brighter effective emitting area is curved (**Fig. 3d no ref. #**).

Regarding claim 9, The planar light emitting mechanism as claimed in claim wherein the lamp is longer than the side of the light guiding plate (**Fig. 2b no ref. #**).

Regarding claim 10, The planar light emitting mechanism as claimed claim 6, wherein the lamp a Cold Cathode Fluorescent Lamp (CCFL) (**col. 8 line 40**).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hori U.S. Patent 6,286,971 discloses Back-Light Unit for Liquid Crystal Display. Deloy U.S. Patent 6,336,728 discloses a Flat Panel Display Light Guide.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Glenn Zimmerman whose telephone number is (571) 272-2466. The examiner can normally be reached on M-W 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh D Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Glenn Zimmerman



Vip Patel  
Primary Examiner  
AU 2879